



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

279-9643

Date of Issuance:

11/7/19

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

VHP58 HERBICIDE

Name and Address of Registrant (include ZIP Code):

Cristina Rodriguez
Product Registration Manager
FMC Corporation
2929 Walnut St.
Philadelphia, PA 19104

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.
2. The data requirements for storage stability and corrosion characteristics (Guidelines 830.6317 and 830.6320) are not satisfied. A one year study is required to satisfy these data requirements. You have 18 months from the date of registration to provide these data.

Signature of Approving Official:

Mindy Ondish, Product Manager 23
Herbicide Branch, Registration Division (7505P)

Date:

11/7/19

3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 10/03/2019

If you have any questions, please contact Shanta Adeeb by phone at 703-347-0502, or via email at adeeb.shanta@epa.gov

Enclosure

ACCEPTED

11/07/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 279-9643

Pyroxasulfone	Group	15	Herbicide
Sulfentrazone	Group	14	Herbicide

VHP58 Herbicide

For weed control in dry shelled peas and beans (subgroup 6C), flax, soybean, and sunflowers

EPA Reg. No. 279-9643

EPA Est. No. _____

ACTIVE INGREDIENTS:	By Wt.
Pyroxasulfone.....	14.77
Sulfentrazone.....	26.44
Other Ingredients	58.79
Total:	100.0%

VHP58 is a suspension concentrate containing 4.25 lb active ingredient per gallon (containing 1.52 lb ai of pyroxasulfone and 2.73 lb ai of sulfentrazone).

KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende esta etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail).

FIRST AID

If Swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If in Eyes:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

If on Skin or Clothing:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

If Inhaled:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.



FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104

Net Contents: _____

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear: long sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, shoes plus socks, and protective eyewear (goggles or face shield).

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations:

Users should:

- Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE/gloves immediately after handling the product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish, aquatic invertebrates, and to some plants at very low concentrations. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

Ground Water Advisory: The chemicals and degradation products have properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Do not use on coarse soils classified as sand, which have less than 1% organic matter.

Surface Water Advisory: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching both surface water and aquatic sediment via runoff for several months or longer after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Point Source Contamination: To prevent point source contamination **do not** mix or load this or any other pesticide within 50 feet of wells (including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs). This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or dike mixing/ loading areas as described below. Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% of that of the largest pesticide container or application equipment used on the pad and has sufficient capacity to contain all products spills, equipment or container leaks, equipment wash waters and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticides shipments to the mixing/ loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixes, or rinsates. Check valves or anti-siphoning devices must be used on all mixing equipment.

PHYSICAL/CHEMICAL HAZARDS

Combustible: Do not use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls over long-sleeved shirt and long pants, protective eyewear (goggles or face shield), chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

RESISTANCE MANAGEMENT

VHP58 Herbicide, which contains the active ingredients sulfentrazone and pyroxysulfone is a group 14 and 15 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application for weeds for identification of species and sizes.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of VHP58 Herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect any poor performance or likely resistance in weeds.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your FMC representative, local retailer, or county extension agent.

- Contact your FMC representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 and 15 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 14 and 15 herbicides.
- Avoid making more than two applications of VHP58 Herbicide and any other Group 14 and 15 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

PRODUCT INFORMATION

VHP58 can be applied in all tillage systems (conventional, reduced and no-tillage) and applied in the fall or in the spring as a preplant, preplant incorporated, or preemergence treatment for susceptible grass and broadleaf weeds in pea and bean dried shelled, except soybean (subgroup 6C), flax, soybean, and sunflowers (subgroup 20B). Consult individual crop sections for specific use directions and application timings for each crop.

Application Instructions and Timing:

Moisture (rainfall or irrigation) is necessary to activate the active ingredients in VHP58 in soil for weed control. Dry weather following applications of VHP58 may reduce the effectiveness of VHP58. However, when adequate moisture is received after dry conditions, VHP58 will control susceptible germinating weeds. VHP58 may not control weeds that germinate after application but before an activating rainfall and/or irrigation of at least 0.5 inch, or weeds that germinate through cracks resulting from dry soil. When adequate moisture is not received after VHP58 application, weed control may be improved by irrigation or shallow incorporation with rotary hoe or other light tillage. If no rain occurs within 7 days after application, apply overhead irrigation if available at 0.5 to 1.0 inch total volume. Refer to the crop specific information section for specific application rates, timings and the restrictions and limitations by crop and use pattern.

Restrictions

- Do not use flood or furrow irrigation to apply, activate or incorporate this product
- Do not use on peat or muck soils or mineral soils with 10% or more organic matter content.
- Do not use on soils classified as sand which have less than 1% organic matter.
- Crop seeds must be planted a minimum of 1 inch deep.

Ground Application

Use sufficient spray pressure and spray volume for accurate and uniform application. Refer to instructions for the spray equipment used to determine the actual minimum volume. The carrier may be either water or a sprayable fluid fertilizer. Do not apply this product without dilution in a spray carrier. For preplant, preplant incorporated, or preemergence applications, apply VHP58 in a minimum of 10 gallons of water per acre. Ground applications must not be made at a height greater than 4 feet above the top of the largest plants if present or the soil surface in conventional tillage.

Aerial Application

Use Restrictions:

Aerial application is allowed only when environmental conditions prohibit ground application. When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons per acre. The maximum release height must be 10 feet from the top of the canopy, unless a greater application height is required for pilot safety.

Do not apply when wind speed favors drift beyond the area intended for treatment.

These requirements must be followed to avoid off-target movement from aerial applications. These requirements do not apply to forestry applications, public health uses or to applications of dry materials.

1. The distance of the outermost nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Observe the regulations of the State where applications are made.
4. Applicators must observe and abide by the requirements of the Aerial Drift Reduction Advisory.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage for pesticide performance. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions. (See Wind, Temperature and Humidity, and Temperature Inversion sections in this label). Select nozzles and application pressure that deliver medium to coarse or larger spray droplets as indicated in the nozzle manufacturer's recommendations and in accordance with ASABE Standard S-572. Select coarse to very coarse droplet size when used as a preemergent/preplant application. Select medium to very coarse droplet size when used postemergence with a contact burndown herbicide. Do not apply as spray droplets smaller than medium to coarse (defined by the ASAE standard).

Controlling Spray Droplet Size

Volume - Use high flow rate nozzles to apply the greatest practical spray volume. Nozzles with higher rated flow generally produce larger droplets.

Pressure - Use the lower spray pressures recommended for the nozzle and do not exceed the manufacturer's recommended pressure. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - For aerial application, the recommended practice is to orient nozzles so that the spray is released parallel to the airstream. This orientation usually produces larger droplets as compared to other nozzle orientations. Significant nozzle deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles for both ground and aerial applications. Solid stream nozzles oriented straight back usually produce the largest droplets and lowest drift potential in aerial applications.

Boom Length - For some aerial use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height - Aerial applications must not be made at a height greater than 10 feet above the top of the target plant canopy, unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment - When applications are made with cross wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the

path upwind. Swath adjustment distance must increase with increasing drift potential (higher wind, smaller drops, etc).

Wind - Variable wind speeds with changing directions may pose the largest potential for drift damage. Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Applications must be avoided if wind speed is below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity - When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation, but they still must remain within the medium droplet size category. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions –Applications must not occur during temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – VHP58 must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops) is minimal.(e.g. when wind is blowing away from the sensitive areas). Maintain a 10-foot buffer between the application area and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas, shrublands, and croplands).

Off-Target Movement of VHP58

Drift of dilute spray mixtures containing VHP58 must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of off-target spray drift. VHP58 can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contacted by VHP58 drift mixtures. Depending on concentration of the spray solution and droplets size (effectively determining the dosage of sulfentrazone) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may or may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit or foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of VHP58 on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. FMC accepts no responsibility or liability for potential crop effects that may result from such misapplication of VHP58.

CLEANING SPRAY EQUIPMENT

Many pesticides are very active at low rates, especially to sensitive crops. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. As soon as possible after spraying VHP58 and before using the sprayer equipment for any other applications, the sprayer equipment must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with VHP58 as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.
2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water or using a commercial tank cleaner. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.

3. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.

4. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water.

5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

Do not apply sprayer cleaning solutions or rinsate to sensitive crops.

Do not store the sprayer for any extended period of time with VHP58 spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

Should small quantities of VHP58 remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

When VHP58 has been tank mixed refer to the label of the product used previously or tank mixed with VHP58 for cleaning instructions.

MIXING AND LOADING INSTRUCTIONS

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Shake well or agitate prior to use.

Mixing Instructions:

1. The spray equipment must be clean before using this product. If it is contaminated with other materials, mixing problems and/or clogging can occur and/or crop response can occur.
2. Prepare no more spray mixture than is needed for the immediate application. Applying the product immediately after preparation ensures that it is in suspension. If application is delayed, agitation to re-mix the products and checking for resuspension ensures proper blending.
3. Maintain maximum agitation throughout the spraying operation.
4. Flush the spray equipment thoroughly after each use and apply rinsate to an appropriate area.

Mixing Steps:

1. Add 1/4 -1/2 of the required amount of clean water and/or fertilizer to the spray or mixing tank.
2. While maintaining agitation, continue filling the spray tank. When the tank is 3/4 full, add any dry formulation tank mix partners and allow them to completely and uniformly disperse.
3. Add the required amount of VHP58 to the spray tank while maintaining agitation. After the product has completely and uniformly dispersed into the tank mix, add any other liquid tank mix partners and allow them to completely and uniformly disperse.
4. Add the proper amount of spray adjuvant and continue agitation while adding the remaining water and/or fertilizer.
5. Complete filling the tank with clean water and/or fertilizer to maintain sufficient agitation at all times to insure surface action until the mixture is uniform.
6. After use, thoroughly clean the sprayer according to this label (see Cleaning Spray Equipment) and any tank mix partner labels.

Mixing VHP58 in Tank Mixtures with Other Products and Fluid Fertilizers

VHP58 is compatible with most commonly used herbicides, insecticides, fungicides, and spray adjuvants. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the

applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. VHP58 can be used with liquid fertilizers. It is recommended that a preliminary compatibility jar test be conducted using appropriate ratios of VHP58 and fertilizer. Dilution of the fertilizer and/or slurring of the VHP58 with water may aid in the mixing of the fertilizer plus herbicide combination. Prepare no more spray mixture than is needed for the immediate application. Applying the product immediately after preparation ensures that it is in suspension. If application is delayed, agitation to re-mix the products and checking for resuspension ensures proper blending.

Compatibility Test

Before mixing, a jar test is needed to ensure VHP58 compatibility with tank mix partners and adjuvants. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredient rates.

1. Add 1.0 pt. of water to each of 2 one-quart jars. Note: Use the same source of water and the other components in the compatibility test that will actually be tank mixed and applied. It is important that all components are mixed at a temperature similar to the temperature of those used for the actual application.
2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pt/100 gallons spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next and emulsifiable concentrates last. Finally, add the appropriate amount of any adjuvants that will be used. After each addition, shake or stir gently to thoroughly mix.
(Dry Herbicides and Adjuvants: For each pound to be applied per acre, add 1.4 tsp. to each jar.
Liquid Herbicides and Adjuvants: For each pint to be applied per acre, add 0.5 tsp. or 2.5 milliliters to each jar).
4. After adding all ingredients for the tank mixture, replace and tighten lids. Shake jars by inverting the mixture and then let stand for 15 to 30 minutes.
5. After waiting period, check jars for separation, precipitates, flakes, films on the side, gels or other signs of incompatibility. If mixtures separate but can be remixed, the mixture can be sprayed as long as good agitation is used.
6. If the mixtures are incompatible, then try these methods to overcome the problem. A) Make a slurry of dry pesticides in water before adding them to the tank B) Add more compatibility agent or increase the water volume of the mixture.
7. If tank mixtures are incompatible, then do not spray the mixture. (Properly dispose of testing jars and any pesticide waste).

DRY FERTILIZER APPLICATION

VHP58 may be impregnated or coated onto dry bulk granular fertilizer carriers for fall, preplant surface and preplant incorporated applications. Follow all VHP58 label requirements, instructions and precautions.

All individual state regulations relating to dry granular fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the herbicide/ fertilizer mixture.

Select the VHP58 application rate per acre from this label and determine the quantity of dry bulk fertilizer to be applied per acre (use a minimum of 200 pounds and a maximum of 750 pounds per acre). Use the equation below to determine the amount of VHP58 needed per ton of fertilizer applied.

$(\text{FI oz of VHP58 per acre} \times 2000) / \text{Pounds fertilizer per acre} = \text{oz of VHP58 for 1 ton of fertilizer}$.

VHP58 may be impregnated on many commonly used dry fertilizer but do not impregnate on ammonium nitrate, fertilizers containing ammonium nitrate, potassium nitrate, sodium nitrate or powdered limestone.

To impregnate VHP58 on bulk fertilizer, use a closed rotary drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix VHP58 with sufficient water to form a sprayable slurry mixture. Spray nozzles be directed to provide uniform fertilizer coverage while avoiding spray contact with mixing equipment. Non uniform impregnation can cause crop injury or unsatisfactory performance.

Spray the herbicide mixture onto the fertilizer after blending has started. If necessary, include a suitable drying agent to ensure a spreadable herbicide impregnated fertilizer. Apply treated fertilizer immediately after impregnation to avoid lump formulation and spreading difficulties. Accurate calibration of fertilizer application equipment and uniform fertilizer distribution is essential for satisfactory weed control. Apply the mixture uniformly to the soil with proper equipment immediately after blending and moisture is required for activation.

WEEDS CONTROLLED

Use Restrictions:

This product, VHP58, may only be used in accordance with the Product Application Information and the specific crop use directions. VHP58 applied fall, early preplant, preplant-incorporated, and preemergence controls the weeds listed in Table 1 prior to their emergence. The length of control is dependent on rate applied, amount of rainfall received following application and soil type. Please see crop specific use rates for rate requirements based on soil type.

VHP58 will not control weeds that are emerged at the time of application, and an appropriate burndown herbicide must be tank-mixed with VHP58 for control of emerged broadleaf and grass weeds.

Table 1. Weeds Controlled by Early Preplant, Pre-plant Incorporated, or Preemergence Applications of VHP58

Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Powell	<i>Amaranthus powellii</i>
Amaranth, spiny	<i>Amaranthus spinosus</i>
Amaranth, spleen	<i>Amaranthus dubius</i>
Barnyardgrass	<i>Echinochloa crus-galli (L.) Beauv.</i>
Bluegrass, annual	<i>Poa annua</i>
Broadleaf signalgrass	<i>Urochloa platyphylla (Nash) R. D. Webster</i>
Canarygrass	<i>Phalaris canariensis</i>
Carpetweed	<i>Mullogo verticillata</i>
Copperleaf, hophornbeam	<i>Acalypha ostryifolia Riddell</i>
Crabgrass spp.	<i>Digitaria spp.</i>
Crowfootgrass	<i>Dactyloctenium aegyptium (L.) Willd.</i>
Cupgrass, Prairie	<i>Eriochloa contracta Hitchc.</i>
Cupgrass, Southwestern	<i>Eriochloa acuminata (J. Presl) Kunth</i>
Fall Panicum	<i>Panicum dichotomiflorum Michx.</i>
Florida Pusley	<i>Richardia scabra L.</i>
Foxtail, Giant	<i>Setaria faberi Herrm.</i>
Foxtail, Green	<i>Setaria viridis (L.) Beauv.</i>
Foxtail, Robust	<i>Setaria viridis var. robusta</i>
Foxtail, Yellow	<i>Setaria glauca (L.) Beauv.</i>
Foxtail, bristly	<i>Setaria verticillata (L.) Beauv.</i>
Goosegrass	<i>Eleusine indica (L.) Gaertn.</i>
Groundcherry, cutleaf	<i>Physalis angulata L.</i>
Hairy galinsoga	<i>Galinsoga ciliata (Raf.) Blake</i>
Kochia (ALS, Dicamba, Glyphosate and Triazine Resistant)	<i>Kochia scoparia (L.) Schrad.</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass (seedling)	<i>Sorghum halepense</i>
Lambsquarters, common	<i>Chenopodium album</i>
Morningglory, entireleaf	<i>Ipomea hederacea integrusc</i>
Morningglory, ivyleaf	<i>Ipomea hederacea hederacea</i>
Morningglory, Palmleaf	<i>Ipomea Wrightii</i>
Morningglory, pitted	<i>Ipomoea lacunosa L.</i>
Morningglory, purple	<i>Ipomea turbinata</i>
Morningglory, red	<i>Ipomea coccinea</i>
Morningglory, scarlet	<i>Ipomea hederifolia</i>
Morningglory, small flower	<i>Jacquemontia tamnifolia (L.) Griseb.</i>
Morningglory, tall	<i>Ipomea, purpurea</i>
Nightshade, black	<i>Solanum nigrum</i>
Nightshade, eastern black	<i>Solanum americanum</i>
Pigweed, red root	<i>Amaranthus retroflexus</i>
Pigweed, smooth	<i>Amaranthus hybridus</i>
Pigweed, spiny	<i>Amaranthus</i>
Pigweed, tumble	<i>Amaranthus albus</i>
Purslane, common	<i>Portulaca oleracea</i>
Red rice	<i>Oryza punctate</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Ryegrass, rigid	<i>Lolium rigidum</i>
Sida, prickly	<i>Sida spinosa L.</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum L.</i>
Star of Bethlehem	<i>Ornithogalum umbellatum L.</i>
Texas panicum	<i>Panicum texanum L</i>
Thistle, Russian	<i>Salsola tragus L.</i>

Tropical Spiderwort	<i>Commelina benghalensis L.</i>
Waterhemp, common	<i>Amaranthus rudis</i>
Waterhemp, tall	<i>Amaranthus tuberculatos</i>
Witch grass	<i>Panicum capillare L.</i>

Table 2. Weeds Partially Controlled or Suppressed by Early Preplant, Pre-plant Incorporated, or Preemergence Applications of VHP58

Brome, Downy	<i>Bromus tectorum</i>
Brome, Japanese	<i>Bromus japonicas</i>
Buckwheat, wild	<i>Polygonum convolvulus</i>
Cheat	<i>Bromus secalinus</i>
Chickweed, common	<i>Stellaria media</i>
Cupgrass, woolly	<i>Eriochloa villosa</i>
Fleabane, common	<i>Conyza bonariensis</i>
Groundsel, common	<i>Senecio media</i>
Henbit	<i>Lamium amplexicaule</i>
Horseweed (maretail) <i>(Emerging from seed, not overwintering plants)</i>	<i>Conyza Canadensis</i>
Millet, wild proso	<i>Panicum milliaceum</i>
Oat, wild	<i>Avena fatua</i>
Ragweed, common	<i>Ambrosia artemisifolia</i>
Sandbur, longspine	<i>Cenchrus longispinus</i>
Spreading orach	<i>Atriplex subspicata</i>
Shattercane	<i>Sorghum vulgare</i>
Velvetleaf	<i>Abutilon theophrasti</i>
<i>Sedges (suppression only)</i>	
Nutsedge, purple	<i>Cyperus rotundus</i>
Nutsedge, yellow	<i>Cyperus esculentus</i>
Sedge, annual	<i>Cares spp.</i>

For weeds only suppressed with use of VHP58 , tank mix or apply as sequential applications with other herbicides for best results.

Soil Texture

Unless a specific soil texture is mentioned, refer to table below for soil texture groups: coarse, medium, and fine. This includes a complete listing of soil textures included in each of the soil texture groupings.

Table 3.

Coarse	Medium	Fine
Sand	Sandy clay	Silty clay loam
Loamy sand	Sandy clay loam	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

CROP ROTATIONAL RESTRICTIONS

If any crop treated with VHP58 Herbicide is lost, registered crops on this label can be replanted immediately. **DO NOT** make a second application of VHP58 Herbicide.

**Table 4.
Crop Rotational Restrictions**

Crop Rotation Interval (Months)				
Crop	Application rates up to 4.47 fl. oz/A	8.94 fl oz/A	13.4 fl oz/A	15.7 fl oz/A
Alfalfa	12	12	12	12
Barley	11	11	11	18
Buckwheat	12	12	12	18
Cabbage (transplant only)	18	18	18	18
Canola, (rapeseed)	24	24	24	24
Corn, field and seed	4	4	4	10
Corn, pop	10	10	10	10
Corn, sweet	12	12	12	12
Cotton	12 ¹	12 ¹	18 ¹	18 ¹
Dry Shelled Peas	Anytime	Anytime	Anytime	4
Dry Shelled Beans	9	9	9	9
Succulent Edible peas	9	9	9	9
Succulent Edible beans and other edible beans (including lentils)	9	9	9	9
Flax	2	4	6	6
Grasses grown for Seed	18	18	18	18
Horseradish	18	18	18	18
Millet, (proso, pearl)	12	12	12	18
Mint	18	18	18	18
Oats	12	12	12	18
Peanut	4	4	4	4
Potato	4	4	4	4
Rice	10	12	18	24
Rye	11	11	11	18
Sorghum	10	10	18	18
Soybeans	Anytime	Anytime	Anytime	4
Sugarbeet	24 ²	24 ²	24 ²	36 ²
Sunflowers	Anytime	Anytime	Anytime	4
Sweet Potato	12	12	12	12
Triticale	11	11	11	18
Wheat	4	4	4	10
Other	18	18	18	24

¹ Cotton may be planted after 12 months where VHP58 was applied at 9.0 fl oz/A or less and meets the following conditions:

- Medium and fine soils
- pH <7.2
- Rainfall or irrigation must exceed 15" after application before planting cotton

²Sugarbeets: A representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.

For crops listed in the rotational crop table, the minimum replant interval listed in the table must be observed. For crops not listed in the rotational crop table, a minimum rotational crop interval of 18 months must be observed and a representative bioassay of the field must be conducted with the rotational crop and adequate soil moisture to evaluate potential crop sensitivity.

If there is a lack of adequate or normal soil moisture due to drought conditions following an application of VHP58 Herbicide, the minimum rotational crop interval listed in the table must be extended for one additional year and a representative bioassay of the field must be conducted with the potential rotational crop and adequate soil moisture to determine the crop sensitivity to VHP58 Herbicide.

APPLICATION INSTRUCTIONS

Fall Application

VHP58 may be applied in the fall for crops that are to be planted the following spring. For control of emerged weeds in the fall use combinations with other burndown herbicides like carfentrazone-ethyl, 2,4-D, dicamba, glyphosate, paraquat or glufosinate. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Do not exceed 2 inch incorporation depth if tilled after application. VHP58 may be broadcast surface applied in the fall after crop harvest when soil temperatures at the 4-inch depth are sustained at less than 55° F and before the ground freezes to control weeds in minimum or no tillage fields planted the following spring. Do not apply to frozen soils or to existing snow cover to prevent VHP58 runoff from rain or snow melt that may occur following application.

Preplant, preemergence and early preplant applications

VHP58 may be applied prior to planting up 3 days after planting. Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the surface. Preplant surface applications are not recommended on coarse soils in areas where average annual rainfall (or rainfall + irrigation) typically exceeds 40 inches. If rainfall or irrigation is not received within 7 days, weed control may be inconsistent. A light incorporation (less than 2" deep) in the soil by mechanical means is allowed and may improve herbicide performance under limited activation moisture conditions. Cultivation or a labeled postemergence herbicide application may still be required under certain conditions for complete weed control.

If weeds are present at the time of application, use additional weed control methods including tank mixes with an appropriate postemergence herbicide(s) to control emerged weeds and follow all label directions, rates, restrictions, and precautions on the tank mixture partner labeling. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Preplant incorporated (PPI) applications

For PPI applications of VHP58 incorporate into the upper (1-2 inches) soil surface before planting. Do not incorporate greater than 2 inches deep. Use appropriate equipment that provides uniform shallow incorporation, such as a field cultivator, harrow, rolling cultivator or finishing disc.

Split applications in labeled crops

VHP58 can be applied in sequential programs, but do not exceed the maximum use rate per year. Do not make more than 2 applications per year. Where weeds are emerged, use appropriate tank mixtures for control of the weed species present.

APPLICATION RATES

Application rates for VHP58 when applied alone, in tank mix, or sequentially are provided in Tables below.

PEA AND BEAN DRIED SHELLED, EXCEPT SOYBEAN (SUBGROUP 6C)

(Subcrop group 6C includes Dried cultivars of bean (*Lupinus* spp.) (includes grain lupin, sweet lupin, white lupin, and white sweet lupin); (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean (hyacinth bean); lentil; pea (*Pisum* spp.) (includes field pea); pigeon pea)

Crop Sensitivity

The use of VHP58 may result in temporary growth suppression of Pea and Bean dried shelled in extreme conditions of high rainfall and extended periods of water-saturated soil that occur during germination or early seedling development.

Table 5. Use Rates of VHP58 in pea and bean dried shelled, except soybean (subgroup 6C)

Organic Matter	Use Rate by Soil Texture ¹ VHP58 fl oz/A per year (lb a.i./A)		
	Coarse	Medium	Fine
< 1.5%	3.3 – 4.4 (0.109-0.146)	4.4 – 6.6 (0.146-0.219)	4.4 – 6.6 (0.146 - 0.219)
1.5 – 3.0%	4.4 – 6.6 (0.146-0.219)	5.5 – 8.8 (0.182-0.292)	6.6 – 8.8 (0.146 - 0.292)
> 3.0%	5.9 – 8.8 (0.184-0.292)	6.6 – 9.9 (0.219-0.328)	7.7 – 11.7 (0.255 - 0.389)
Use higher rates for soils with pH less than 7.2 and lowest rate for pH greater than 7.2 within the rate range.			

¹ Refer to definitions of soil texture groups in Soil Texture Table 3.

- **Restrictions for use in pea and bean dried shelled, except soybean (subgroup 6C)-**
- **DO NOT** apply more than a maximum cumulative amount of 11.71 fl oz/A VHP58 (0.389 lb ai/A containing 0.139 lb ai of pyroxasulfone and 0.25 lb ai of sulfentrazone) of VHP58 per year.
- Do not apply more than a cumulative of 0.266 pound active of pyroxasulfone per year from all sequential applications.
- Do not apply more than a cumulative of 0.25 pound active of sulfentrazone per year from all sequential applications.
- Do not apply more than 11.71 fl oz/A of VHP58 in a single application.
- Do not make more than 2 applications of VHP58 per year when using reduced application rates equal or less than 5.8 fl oz/A
- The twelve month period is considered to begin upon initial application of the product.
- Do not apply within 7 days if a second application is necessary.

Use Instructions and Precautions for use in pea and bean dried shelled, except soybean (subgroup 6C)

- Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. VHP58 use rates must be reduced in those areas. If applying VHP58 to coarse textured soils with less than 1.5% organic matter, best results are achieved by waiting a minimum of 7-14 days after application before planting
- Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.
- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of VHP58 from seed germination through seedling emergence may increase the risk of dry beans, dry peas seedling injury and must be avoided if possible.
- The use of VHP58 may result in temporary growth suppressions or leaf burn on dry beans, dry peas under stressful conditions such as inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of VHP58 may reduce herbicidal effectiveness. When VHP58 is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.
- Before applying to dry beans or peas, verification of VHP58 selectivity on your variety must be confirmed to avoid injury to sensitive beans varieties. Check with the local Cooperative Extension agent for information on potential VHP58 varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply VHP58 on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of VHP58 and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, VHP58

Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with VHP58. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on VHP58 under specific local conditions.

FLAX

Crop Sensitivity

The use of VHP58 may result in temporary growth suppression of Flax in extreme conditions of high rainfall and extended periods of water-saturated soil occurring during germination or early seedling development.

Table 6. Use Rates of VHP58 in Flax

Organic Matter	Use Rate by Soil Texture ¹ VHP58 fl oz/A per year (lb a.i./A)		
	Coarse	Medium	Fine
< 1.5%	4.4 – 5.5 (0.146-0.182)	4.4 – 6.6 (0.146-0.219)	5.5 – 7.7 (0.182 - 0.255)
1.5 – 3.0	4.4 – 6.6 (0.146-0.219)	5.5 – 8.8 (0.182-0.292)	6.6 – 9.9 (0.219 - 0.328)
> 3.0	5.5 – 8.8 (0.182-0.292)	6.6 – 9.9 (0.219-0.328)	8.8 – 11.7 (0.292 - 0.389)
Use higher labeled rates for soils of pH less than 7.2 and lowest rate for pH greater than 7.2 within the rate range.			

¹ Refer to definitions of soil texture groups in Soil Texture Table 3.

Restrictions for Use in Flax

- **DO NOT** apply more than a maximum cumulative amount of 11.71 fl oz/A VHP58 (0.389 lb ai/A containing 0.139 lb ai of pyroxasulfone and 0.250 lb ai of sulfentrazone) of VHP58 per year across all soil types.
- Do not apply more than a cumulative of 0.375 lb active of sulfentrazone per acre per twelve-month period.
- Do not apply more than 11.71 fl oz/A of VHP58 in a single application.
- Do not make more than 2 applications of VHP58 per year when using reduced application rates equal or less than 5.8 fl oz/A.
- The twelve month period is considered to begin upon initial application of the product
- Do not apply within 7 days if a second application is necessary.

Use Instructions and Precautions For Use in Flax

- Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. VHP58 use rates must be reduced in those areas. If applying VHP58 to coarse textured soils with less than 1.5% organic matter, best results are achieved by waiting a minimum of 7-14 days after application before planting
- Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.
- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume. Use a maximum of 0.5 inch on coarse textured soils and a maximum of 1.0 inch on medium and fine textured soils.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of VHP58 from seed germination through seedling emergence may increase the risk of flax seedling injury and must be avoided if possible.
- The use of VHP58 may result in temporary growth suppressions or leaf burn on Flax under stressful conditions such as inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of VHP58 may reduce herbicidal effectiveness. When VHP58 is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.

- Before applying to flax, verification of VHP58 selectivity on your variety must be confirmed to avoid injury to sensitive flax varieties. Check with the local Cooperative Extension agent for information on potential VHP58 varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply VHP58 on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of VHP58 and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, VHP58 Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with VHP58. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on VHP58 under specific local conditions.

SOYBEAN

Apply preplant, preplant incorporated or preemergence up to 3 days after planting but before soybeans have started to emerge.

Table 7. Use rates of VHP58 in Soybean

Organic Matter	Use Rate by Soil Texture ¹ VHP58 fl oz/A per year (lb a.i./A)		
	Coarse	Medium	Fine
< 1.5%	5.9 – 7.9 (0.196 - 0.261)	7.0 – 10.0 (0.288 - 0.326)	9.0 – 12.0 (0.294 – 0.392)
1.5 – 3.0	6.9 – 8.8 (0.228-0.294)	8.0 – 11.0 (0.261 – 0.359)	10.0 – 13.0 (0.326 - 0.424)
> 3.0	7.0- 9.4 (0.288-0.313)	9.0 – 12.0 (0.294 – 0.392)	12.0 – 15.7 (0.392- 0.521)
Use higher labeled rates for soils of pH less than 7.2 and lower rates for pH greater than 7.2 within the rate range.			

¹ Refer to definitions of soil texture groups in Soil Texture Table 3.

Restrictions for Use in Soybean

- Do not make more than 2 applications per year.
- Do not apply within 7 days if a second application is necessary.
- **On coarse soils - DO NOT** apply more than a maximum cumulative amount of 9.42 fl oz/A VHP58 (0.313 lb ai/A containing 0.111 lb ai of pyroxasulfone and 0.202 lb ai of sulfentrazone) per year.
- Do not apply more than 9.42 fl oz/A of VHP58 in a single application.
- Do not make more than 2 applications of VHP58 per year when using reduced application rates equal or less than 4.7 fl oz/A
- The twelve month period is considered to begin upon initial application of the product
-
- **On medium and fine soils soils – DO NOT** apply more than a maximum cumulative amount of 15.7 fl oz/A of VHP58 (0.521 lb. ai/A containing 0.186 lb ai of pyroxasulfone and 0.335 lb ai of sulfentrazone) per year.
- Do not apply more than 15.7 fl oz/A of VHP58 in a single application.
- Do not make more than 2 applications of VHP58 per year when using reduced application rates equal or less than 7.8 fl oz/A
- The twelve month period is considered to begin upon initial application of the product

Use Instructions and Precautions For Use in Soybean

- Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of VHP58 from seed germination through seedling emergence may increase the risk of soybean seedling injury and must be avoided if possible.
- The use of VHP58 may result in temporary growth suppressions or leaf burn on soybean under stressful conditions such as inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of VHP58 may reduce herbicidal effectiveness. When VHP58 is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.
- Before applying to soybean, verification of VHP58 selectivity on your variety must be confirmed to avoid injury to sensitive soybean varieties. Check with the local Cooperative Extension agent for information on potential VHP58 varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply VHP58 on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of VHP58 and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, VHP58 Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with VHP58. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on VHP58 under specific local conditions.

SUNFLOWER (Subgroup 20B)

Apply preplant, preplant incorporated or preemergence up to 3 days after planting but before sunflowers have started to emerge.

Table 8. Use rates of VHP58 in Sunflowers (Subgroup 20B)

Organic Matter	Use Rate by Soil Texture ¹ VHP58 fl oz/A per year (lb a.i./A)		
	Coarse	Medium	Fine
< 1.5%	4.4 – 5.5 (0.146-0.182)	4.4 – 6.6 (0.146-0.219)	5.5 – 7.7 (0.182 - 0.255)
1.5 – 3.0	4.4 – 6.6 (0.146-0.219)	4.4 – 8.8 (0.146-0.292)	6.6 – 9.9 (0.219 - 0.328)
> 3.0	5.5 – 8.8 (0.182-0.292)	6.6 – 9.9 (0.219-0.328)	8.8 – 11.7 (0.292 - 0.389)
Use higher labeled rates for soils of pH less than 7.2 and lowest rate for pH greater than 7.2 within the rate range.			

¹ Refer to definitions of soil texture groups in Soil Texture Table 3.

Restrictions for Use in Sunflower (subgroup 20B)

- **DO NOT** apply more than a maximum cumulative amount of 11.71 fl oz/A VHP58 (0.389 lb ai/A containing 0.139 lb ai of pyroxasulfone and 0.25 lb ai of sulfentrazone) per year.
- Do not apply more than a cumulative of 0.266 pound active of pyroxasulfone per year from all sequential applications.
- Do not apply more than a cumulative of 0.25 pound active of sulfentrazone per year from all sequential applications.
- Do not apply more than 11.71 fl oz/A of VHP58 in a single application.

- Do not make more than 2 applications of VHP58 per year when using reduced application rates equal or less than 5.8 fl oz/A
- The twelve month period is considered to begin upon initial application of the product
- Do not apply within 7 days if a second application is necessary.

Use Instructions and Precautions For Use in Sunflower (subgroup 20B)

- Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. VHP58 use rates must be reduced in those areas. If applying VHP58 to coarse textured soils with less than 1.5% organic matter, best results are achieved by waiting a minimum of 7-14 days after application before planting
- Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions including excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.
- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 1 inch total volume.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of VHP58 from seed germination through seedling emergence may increase the risk of sunflower seedling injury and must be avoided if possible.
- The use of VHP58 may result in temporary growth suppressions or leaf burn on Sunflower under stressful conditions including inadequate or excessive moisture, cool and hot temperatures, compacted soils, injury from other pesticides, disease or other pest damage, mechanical injury, nutrient imbalances, or other conditions known to cause plant stress.
- Prolonged periods of dry weather following applications of VHP58 may reduce herbicidal effectiveness. When VHP58 is not activated and weeds emerge, a labeled postemergence herbicide will be needed to control weed escapes.
- VHP58 can be used on all types of sunflowers. Before applying to Sunflower subgroup 20B crops verify with your local seed company (supplier) the selectivity of VHP58 on your inbred line or hybrid to avoid potential injury.
- Before applying to sunflower, verification of VHP58 selectivity on your variety must be confirmed to avoid injury to sensitive sunflower varieties. Check with the local Cooperative Extension agent for information on potential VHP58 varietal sensitivity. If variety sensitivity is unknown, such as with new varieties, apply VHP58 on a small area to confirm variety safety before use on large acreage.

These Crop Specific Use directions are based upon the interactive effects of VHP58 and the primary soil and environmental factors, which affect its activity on various weed species and sensitivity among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, VHP58 Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with VHP58. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on VHP58 under specific local conditions.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage

Store product in original container only, in a well ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. Store in a cool, dry place and avoid excess heat.

In Case of Spill

Avoid contact. Isolate areas and keep out animals and unprotected persons. Confine spills. **Call CHEMTREC (Transportation and spills): (800) 424-9300.**

To Confine Spills.

Dike surrounding area; sweep up spillage, Dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container. Identify contents per required hazardous waste labeling regulations.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or

Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling

Nonrefillable container: Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows:

(For containers greater than 5 gallons) Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

(For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Returnable/Refillable Container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded. The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control or FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors. Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT.

Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent permitted by applicable law, buyer assumes the risk of any such use. To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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LABEL TRACKING INFORMATION

Label Code: D-4209 110619

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